

60. (new) The method of claim 59 where more than one period of inflow into the tubing string or more than one period of monitoring pressure build up in the well bore is completed.

61. (new) The method of claim 59 where the fluid used to pressurize the coiled tubing string is a gas.

62. (new) The method of claim 59 where the fluid used to pressurize the coiled tubing string is a mixture of liquid and gas such that the amount of liquid does not create a hydrostatic pressure in the tubing greater than the pressure in the formation adjacent to the down hole assembly.

63. (new) A method of formation evaluation, where the formation is penetrated by a well bore, the method comprising the steps of:

lowering a valve assembly into the well bore as part of a downhole tool assembly suspended on a coiled tubing string, the downhole tool assembly comprising inflatable well bore sealing means, a micro-controller, pressure sensing devices, and a communication modem and the valve assembly comprising a multi-position fluid control valve;

pressurizing the coiled tubing to a first pressure at the down hole assembly which is greater than a second pressure in the well bore at the down hole assembly, said first and second pressures being monitored by the pressure sensing devices;

opening the multi-position fluid control valve in the down hole assembly to allow fluid in the coiled tubing to flow into the inflatable well bore sealing means thereby isolating at least one linear segment of the well bore from the remainder of the well bore;

moving the multi-position fluid control valve in the down hole assembly to lock the pressure in the well bore sealing means;

reducing the first pressure in the coiled tubing to below the second pressure

while monitoring the first pressure and the second pressure with the pressure sensing devices in the down hole assembly;

opening the multi-position fluid control valve in the down hole assembly to allow fluids in the at least one isolated linear segment of the well bore, as well as fluids and solid materials from the underground formation adjacent to the at least one linear segment of the well bore, to flow through the multi-position fluid control valve;

closing the multi-position fluid control valve in the down hole assembly and recording the pressure response in the at least one isolated linear segment of the well bore using pressure sensing devices in the down hole assembly; and

opening the multi-position fluid control valve in the down hole assembly to allow the fluids in the inflatable well bore sealing means to flow into the well bore until the pressure has been equalized and the inflatable well bore sealing means have deflated.

64. (new) The method of claim 63 in which the fluids and solid materials from the underground formation adjacent to the at least one linear segment of the well bore flow through the multi-position fluid control valve into an annular region above the multi-position fluid control valve.

65. (new) The method of claim 63 further comprising completing one or more steps selected from the group consisting of causing more than one period of inflow into the coiled tubing string and more than one period of monitoring pressure build up in the well bore.

66. (new) The method of claim 63 in which the fluid used to pressurize the coiled tubing string is a gas.

67. (new) The method of claim 63 in which the fluid used to pressurize the coiled tubing string is a mixture of liquid and gas such that the amount of liquid does not create a hydrostatic pressure in the coiled tubing string greater than the pressure in the

underground formation adjacent to the down hole assembly.